Abstract

The present invention is based on the discovery that the Disabled 1 protein (Dab1) is a substrate for Cdk5 activity, and is selectively phosphorylated by Cdk5. An assay to determine Cdk5 activity by detection of Dab1 phosphorylation on serine amino acids that are selectively phosphorylated by Cdk5 is provided. The invention further provides an antibody and screening kit to determine Cdk5 activity, a method for detecting a neurological disorder by determining Cdk5 activity, a method of screening for compounds that increase or decrease Cdk5 activity and a method for treating a neurological disorder with such a compound.